CLAIMS

1. In a unit cell for use in a bipolar, filter press type, aqueous alkali metal chloride solution electrolytic cell comprising a plurality of unit cells which are arranged in series through a cation exchange membrane disposed between respective adjacent unit cells, each unit cell comprising:

an anode-side pan-shaped body having an anode compartment and an anode-side gas-liquid separation chamber which is disposed in an anode-side non-current flowing space left above said anode compartment and extends over the entire length of the upper side of said anode compartment, and

a cathode-side pan-shaped body having a cathode compartment and a cathode-side gas-liquid separation chamber which is disposed in a cathode-side non-current flowing space left above said cathode compartment and extends over the entire length of the upper side of said cathode compartment,

said anode-side pan-shaped body and said cathode-side pan-shaped body being disposed back to back,

said anode-side and cathode-side gas-liquid separation chambers having perforated bottom walls separat-

tion chambers from said anode compartment and said cathode compartment, respectively, and

each of said gas-liquid separation chambers having, at one end thereof, a gas and liquid outlet nozzle,

the improvement comprising a bubble removing partition wall which is disposed at least in said anode-side gas-liquid separation chamber of said anode-side and cathode-side gas-liquid separation chambers and which extends upwardly of the perforated bottom wall of the gas-liquid separation chamber,

said bubble removing partition wall extending along the entire length of said gas-liquid separation chamber to partition said gas-liquid separation chamber into a first passage A formed on said bottom wall in a perforated area thereof and a second passage B formed on said bottom wall in a non-perforated area thereof,

said bubble removing partition wall having an apertured segment,

the apertures of said apertured segment of the bubble removing partition wall being positioned at least 10 mm above the inside surface of the bottom wall of the gas-liquid separation chamber,

wherein said second passage B communicates with said gas and liquid outlet nozzle and wherein said second passage B communicates with the anode compartment

through said apertured segment and said first passage A.

2. The unit cell according to claim 1, which further comprises, at least in the anode compartment of the anode and cathode compartments, a baffle plate disposed in an upper portion of the anode compartment, wherein said baffle plate is positioned so that an upward flow passage C is formed between said baffle plate and the anode and a downward flow passage D is formed between said baffle plate and a back-side inner wall of the anode compartment.

3. The unit cell according to claim 2, wherein:

said baffle plate has a height of from 300 mm to 600 mm,

said upward flow passage C has a broader width at a lower end thereof than at an upper end thereof, and has a width in the range of from 5 mm to 15 mm as measured at the smallest spacing between the baffle plate and the anode, and

said downward flow passage D has a broader width at an upper end thereof than at a lower end thereof, and has a width in the range of from 1 mm to 20 mm as measured at the smallest spacing between the baffle [illegible] wall of the anode com-

partment.

4. The unit cell according to any one of claims 1 to 3, which further comprises, at least in the anode compartment of the anode and cathode compartments, an electrolytic solution distributor having a pipe-like morphology and disposed in a lower portion of the anode compartment,

said distributor having a plurality of electrolytic solution feed holes and having an inlet communicating with an electrolytic solution inlet nozzle of the anode compartment,

wherein each of said electrolytic solution feed holes has a cross-sectional area such that, during the operation of the unit cell, when a saturated saline solution is supplied as an electrolytic solution through said distributor at a minimum flow rate for conducting an electrolysis at a current density of 40 A/dm^2, each electrolytic solution feed hole exhibits a pressure loss of from 50 $mm \cdot H_2O$ to 1,000 $mm \cdot H_2O$.